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Southernmost record for the leaflitter frog *Pristimantis ockendeni* (Boulenger, 1912) (Anura: Craugastoridae)

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Abstract: We expanded the known distribution of the leaflitter frog *Pristimantis ockendeni* (Boulenger, 1912) with a new record from Madidi National Park, La Paz, Bolivia. This represents the southernmost record along the Andes for this species. Individuals were found in montane savanna and gallery forest at about 1800 m above sea level close to the Machariapo River near the community of Sarayo.

Key words: distribution; Madidi, Bolivia

The leaflitter frog *Pristimantis ockendeni* (Boulenger, 1912) (Figure 1) is found in forests of the upper Amazon basin along the Andes from southern Colombia to northern Bolivia (Padial et al. 2004; Elmer & Cannatella 2008; AmphibiaWeb 2015). The type locality of the species is La Unión, Río Huacamayo, Carabaya, in southeastern Peru (Boulenger 1912). Specimens were also recorded almost 1800 km away from the type locality in the Brazilian states of Amazonas and Pará (AmphibiaWeb 2015). Given the limited geographical ranges of most Andean and Amazonian amphibians (Wynn & Heyer 2001; Graham et al. 2004), it seems unlikely that the specimens in Brazil are *P. ockendeni*. Indeed, Elmer & Cannatella (2008) documented cryptic species diversity in this group and discovered three new species from Ecuador (*P. achuar*, *P. altamnis, P. kichwarum*). These species were previously confused with *P. ockendeni*, but comprehensive genetic and morphological analyses revealed marked differences between the four species. The northernmost distribution of *P. ockendeni* is therefore unknown, and specimens from northern Peru merit further taxonomic studies to review species identification.

The previous southernmost record for *Pristimantis ockendeni* in the Pando department of northern Bolivia was the first record for the country (Figure 2; Padial et al. 2004).

As part of the Identidad Madidi initiative (http://www.identidadmadidi.org), in June 2015 we conducted a biodiversity survey in montane savanna and gallery forests along the Machariapo River and near the community of Sarayo, at about 1800 m above sea level. For 14 sampling days (109 person-hours), amphibians were sampled using pitfall traps, diurnal and nocturnal transects, and intensive searches.

Figure 1. *Pristimantis ockendeni,* Madidi National Park. Annotated numbers correspond to those featured in the description. Photos by M. Ocampo.

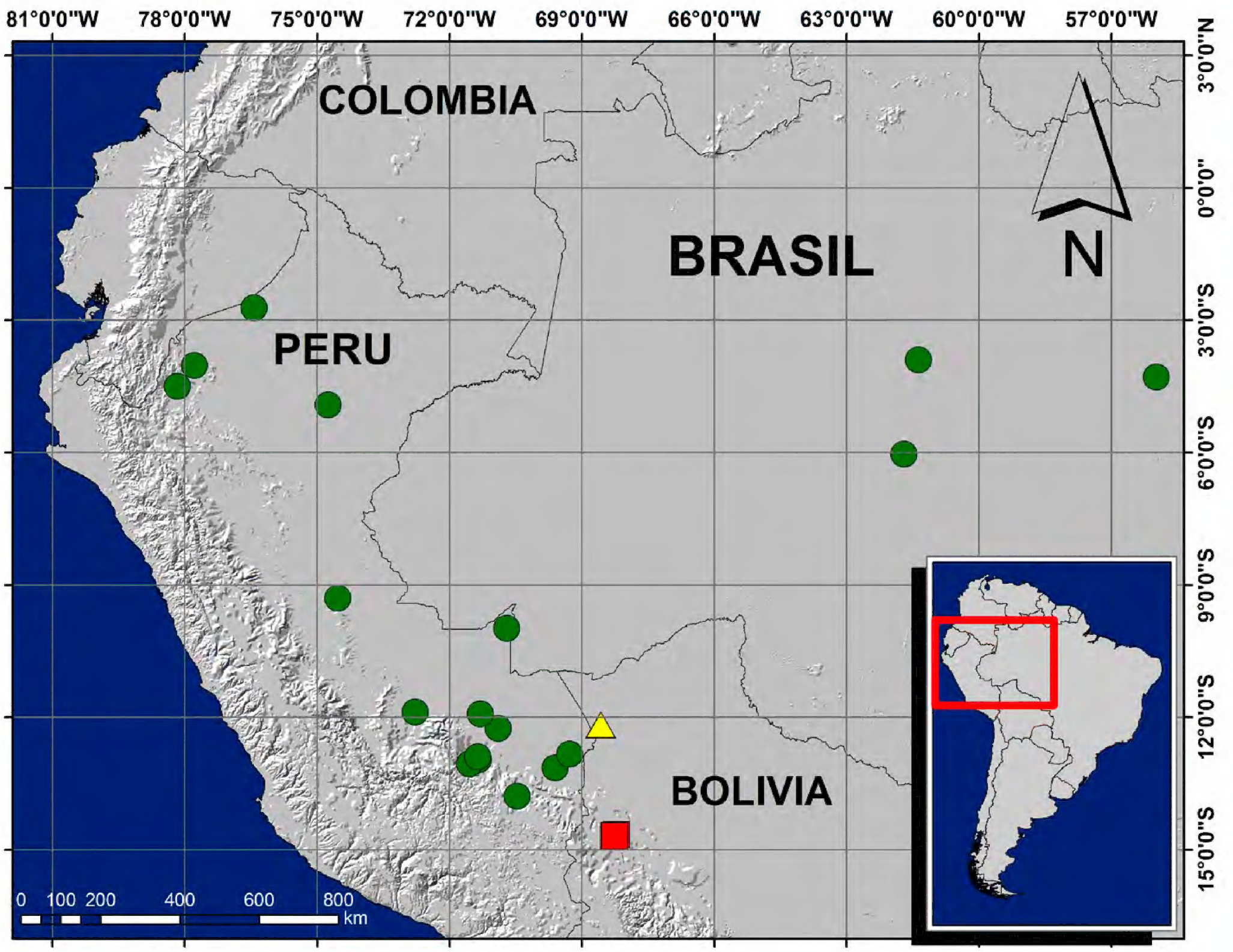

Figure 2. Distribution map for *Pristimantis ockendeni* in South America (WGS84), green circles from Amphibia Web 2015 omitting Ecuador records as they were described as several other species (Elmer & Cannatella 2008), the yellow triangle represents the first Bolivian record (Padial et al. 2004), and the red square is the new southernmost record described herein.

Five *Pristimantis ockendeni* individuals were collected (Figure 1) and deposited at the Colección Boliviana de Fauna (CBF) with the museum numbers CBF-6940 (14°41′34.8″ S, 068°17′03″ W), CBF-6945 (14°39′27.3″ S, 068°13′05.2″ W), CBF-6948 (14°40′40.7″ S, 068°15′40.3″ W), CBF-6949 (14° 40′33.6″ S, 068°15′46.8″ W), and CBF-6950 (14°41′08.5″ S, 068°15′34.1″ W).

This species is characterized by: 1) skin of dorsum shagreen. 2) with or without W-shaped occipital ridges. 3) Tympanum usually clearly visible, its length one-fourth to two-fifths of eye length. 4) Snout subacuminate in dorsal view, rounded or feebly pointed in lateral profile, snout short. 5) Oblique prevomerine odontophores clearly visible in large specimens. 6) Eye length greater than eye-nostril distance. 7) Canthal stripe from nostril to eye absent, which is present in similar species of Ecuador. 8) First finger shorter than second. 9) All fingers bearing pads and discs. 10) Largest pad on fingers 3 or 4. 11) Supratympanic stripe. 12) Dorsal chevrons. 13) Lumbar bar (Lynch 1974).

With this new record for Madidi National Park in La Paz department, we extend the southern distributional limit for *Pristimantis ockendeni* by 280 km from the previously known range (Padial et al. 2004). To date, records of *P. ockendeni* in southern Peru are from the national protected areas of Parque Nacional Manu and Reserva Nacional Tambopata, and records in Bolivia are also found in the national protected areas of Reserva Nacional Manuripi Heath and Parque Nacional Madidi. Thus, this species is protected in most of the southern portion of its distribution, though further studies are required to determine the population status of the species.

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